

Development of Improved Energy Efficiency and Renewable Energy Opportunities on Alabama Department of Corrections Agricultural Facilities, Alabama Department of Corrections (ADOC)

The Alabama Department of Economic and Community Affairs (ADECA) – Energy, Weatherization and Technology (EWT) Division awarded an Agriculture Energy Program grant to The Alabama Department of Corrections (ADOC) for the development of renewable energy opportunities within the state’s prison system.

ADOC currently houses about 26,000 inmates in 34 facilities across the state. The kitchens in these facilities consume approximately 1 million pounds of vegetable cooking oil per year. Research suggests that about one-half of the cooking oil used by these facilities ends up as waste vegetable oil (WVO). Several of ADOC’s larger prisons are currently paying commercial renderers as much as \$300 per year for disposal of the WVO being generated.

ADOC will purchase two waste oil burning furnaces and a farm scale biodiesel processor for installation at its Draper Farm operations. WVO and used motor oil will be used to heat the Draper farm garage displacing the \$6,300 currently spent annually for natural gas. The remaining WVO will be used to produce biodiesel that will fuel trucks and farm equipment resulting in approximately \$9,400 annual savings in fuel costs at the Draper location. In addition to the prospects of significant cost savings to the state, this project will provide inmates with experience and valuable training in a rapidly emerging field of technology that has varied commercial applications.